

# Inhibition of Gp120 Binding to CD4 by Chimpanzee Sera

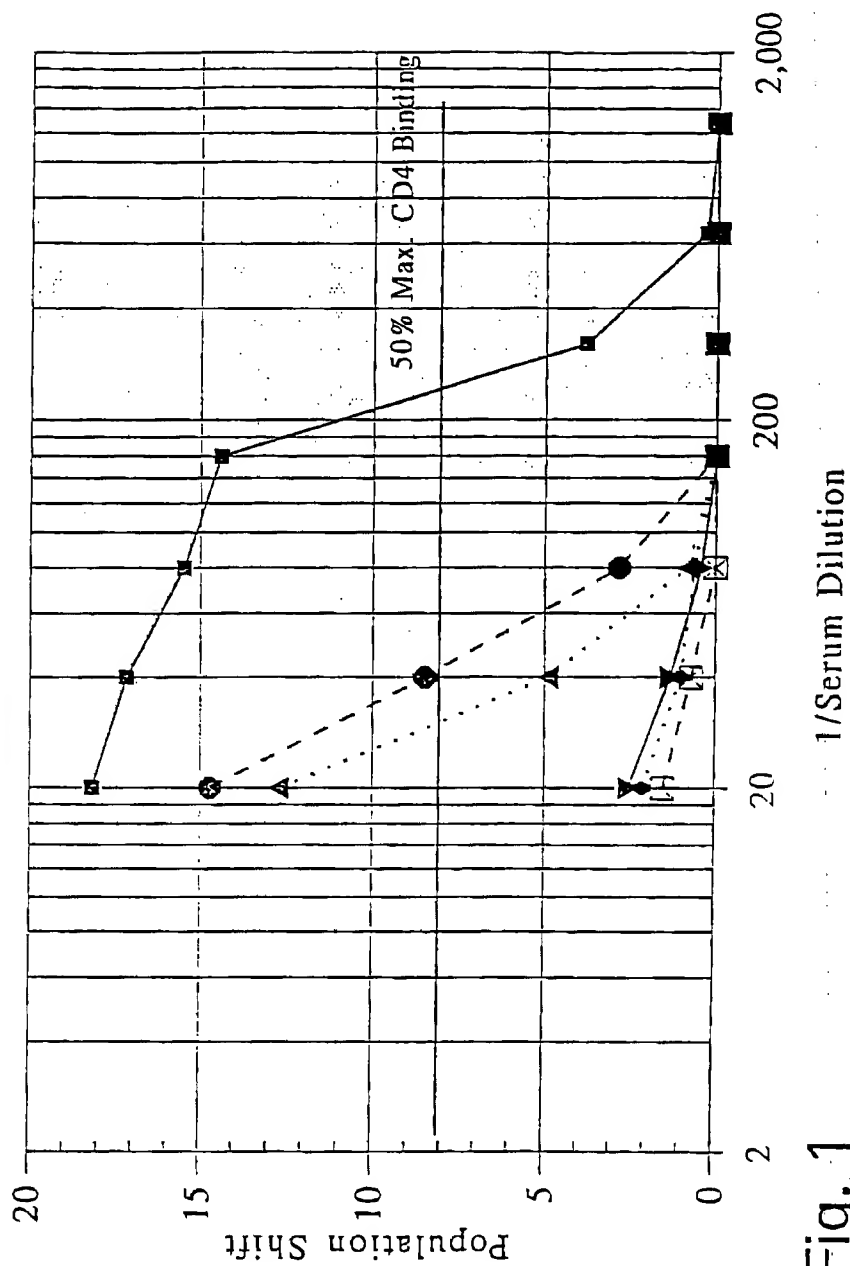


Fig. 1

Chimpanzee Number

▼ Preimmune 6 ▲ Immune 6 ◻ Preimmune 4 ◆ Immune 4 ■ Preimmune 5 ● Immune 5 ◼



260	270	280	290	300
CCTTTGAGCG AAAGCGTCTA ACCAGTCGCA ATCGCAAGAA GCTGTGCGAG				
CCTTTGAGCG AAAGCGTCTA ACCAGTCGCA ATCGCAAG				
				==>
				==>
				==>
				==>
				==>
				==>
310	320	330	340	350
CCACCATGAG AGTGAAGGGG ATCAGGAGGA ATTATCAGCA CTGGTGGGGA				
A==				
A==				
*--*-----				
GCAATGAG AGTGAAGGGG ATCAGGAGGA ATTATCAGCA CTGGTGGGGA				
				==>
				==>
				==>
				==>
360	370	380	390	400
TGGGGCAGCA TGCTCCTTGG GTTATTAAAG ATCTGTAGTG CTACAGAAAA				
A==				
A==				
-----				
TGGGGCAGCA TGCTCCTTGG GTTATTAAAG ATCTGTAGTG CTACAGAAAA				
				==>
				==>
				==>
				==>
410	420	430	440	450
ATTGTGGGTC ACAGTCTATT ATGGGCTACC TGTGTGCAAA GAAGCAACCA				
A==				
A==				
-----				
ATTGTGGGTC ACAGTCTATT ATGGGCTACC TGTGTGCAAA GAAGCAACCA				
				==>
				==>
				==>
				==>
460	470	480	490	500
CCACTCTATT TTGTGCATCA GATGCTAAAG CATATGATAC AGAGGTACAT				
A==				
A==				
-----				
CCACTCTATT TTGTGCATCA GATGCTAAAG CATATGATAC AGAGGTACAT				
				==>
				==>
				==>
				==>

Anti PL →  
*arch*

Met  
 → 5' 7' 15' 21' 27' 33' 39' 45' 51' 57' 63' 69' 75' 81' 87' 93' 99' 105' 111' 117' 123' 129' 135' 141' 147' 153' 159' 165' 171' 177' 183' 189' 195' 201' 207' 213' 219' 225' 231' 237' 243' 249' 255' 261' 267' 273' 279' 285' 291' 297' 303' 309' 315' 321' 327' 333' 339' 345' 351' 357' 363' 369' 375' 381' 387' 393' 399' 405' 411' 417' 423' 429' 435' 441' 447' 453' 459' 465' 471' 477' 483' 489' 495' 501' 507' 513' 519' 525' 531' 537' 543' 549' 555' 561' 567' 573' 579' 585' 591' 597' 603' 609' 615' 621' 627' 633' 639' 645' 651' 657' 663' 669' 675' 681' 687' 693' 699' 705' 711' 717' 723' 729' 735' 741' 747' 753' 759' 765' 771' 777' 783' 789' 795' 801' 807' 813' 819' 825' 831' 837' 843' 849' 855' 861' 867' 873' 879' 885' 891' 897' 903' 909' 915' 921' 927' 933' 939' 945' 951' 957' 963' 969' 975' 981' 987' 993' 999

FIG. 2-B

510 520 530 540 550  
 AATGTTTGGG CCACACATGC CTGTGTACCC ACAGACCCCA ACCCAACAAG  
 <==  
 <==  
 AATGTTTGGG CCACACATGC CTGTGTACCC ACAGACCCCA ACCCAACAAG  
 ==>  
 ==>  
 ==>  
 ==>  
 550 570 580 590 600  
 AGTAGAATTG GTAAGTGTGA CAGAAAATT TAAACATGTGG AAAAATAACA  
 <==  
 <==  
 AGTAGAATTG GTAAGTGTGA CAGAAAATT TAAACATGTGG AAAAATAACA  
 ==>  
 ==>  
 ==>  
 ==>  
 610 620 630 640 650  
 TGCTAGAACA GATGCATGAG GATATAATCA GTTTATGGGA TCAAAGCCTA  
 <==  
 <==  
 TGCTAGAACA GATGCATGAG GATATAATCA GTTTATGGGA TCAAAGCCTA  
 ==>  
 ==>  
 ==>  
 ==>  
 650 670 680 690 700  
 AAGCCATGTG TAAATTTAAG CCCACTCTGT GTTACTTTAA ATTGCACCTG  
 <==  
 <==  
 AAGCCATGTG TAAATTTAAG CCCACTCTGT GTTACTTTAA ATTGCACCTG  
 ==>  
 ==>  
 ==>  
 ==>  
 710 720 730 740 750  
 TTTCAGGAAT ACTACTAATA CCAATAATAG TACTGCTAAT AACAAATAGTA  
 <==  
 <==  
 TTTCAGGAAT ACTACTAATA CCAATAATAG TACTGCTAAT AACAAATAGTA  
 ==>  
 ==>  
 ==>  
 ==>

FIS. 2-C

760	770	780	790	800
ATAGCGAGCG AACAATAAG GGAGGAGAAA TGAAAACTG CTCTTTCAAT				
A==				
A==				
-----				
ATAGCGAGCG AACAATAAG GGAGGAGAAA TGAAAACTG CTCTTTCAAT				
==>				
==>				
==>				
==>				
810	820	830	840	850
ATCACCACAA GCATAAGAGA TAAGATCCAG AAAGAATATG CACTTCTTTA				
A==				
A==				
-----				
ATCACCACAA GCATAAGAGA TAAGATCCAG AAAGAATATG CACTTCTTTA				
==>				
==>				
==>				
==>				
860	870	880	890	900
TAACTTGTAT ATAGTATCAA TAAATAATGA TAGTACCAGC TATAGCTTGA				
A==				
A==				
-----				
TAACTTGTAT ATAGTATCAA TAAATAATGA TAGTACCAGC TATAGCTTGA				
==>				
==>				
==>				
==>				
910	920	930	940	950
TAAGTTGTAA TAQCTCAGTC ATTACACAAG CTTGTCCAAA GATATCCTTT				
A==				
A==				
-----				
TAAGTTGTAA TAQCTCAGTC ATTACACAAG CTTGTCCAAA GATATCCTTT				
==>				
==>				
==>				
==>				
960	970	980	990	1000
GAGCCAAATC GCATACACTA TTGTGCCCCG GCTGCTTTTG CGATTCTAAA				
A==				
A==				
-----				
GAGCCAAATC GCATACACTA TTGTGCCCCG GCTGCTTTTG CGATTCTAAA				
==>				
==>				
==>				
==>				

FIG. 2-D

1010	1020	1030	1040	1050
GTGTAACGAT AAAAAGTTCA GTGGAAAAGG ATCATGTAAA AATGTCAGCA				
<==				
<==				
-----				
GTGTAACGAT AAAAAGTTCA GTGGAAAAGG ATCATGTAAA AATGTCAGCA				
				==>
				==>
				==>
				==>
1060	1070	1080	1090	1100
CAGTACAATG TACACATGGA ATTAGGCCAG TAGTATCAAC TCAACTGCTG				
<==				
<==				
-----				
CAGTACAATG TACACATGGA ATTAGGCCAG TAGTATCAAC TCAACTGCTG				
				==>
				==>
				==>
				==>
1110	1120	1130	1140	1150
TTAAATGGCA GTCTAGCAGA AGAAGAGGTA GTAATTAGAT CTGACAATTT				
<==				
<==				
-----				
TTAAATGGCA GTCTAGCAGA AGAAGAGGTA GTAATTAGAT CTGACAATTT				
				==>
				==>
				==>
				==>
1160	1170	1180	1190	1200
CAATGATAAT GCTAAAACCA TCATAGTACA TCTGAATGAA TCTGTACAAA				
<==				
<==				
-----				
CAATGATAAT GCTAAAACCA TCATAGTACA TCTGAATGAA TCTGTACAAA				
				==>
				==>
				==>
				==>
1210	1220	1230	1240	1250
TTAATTGTAC AAGACCCAAC TACAATAAAA GAAAAAGGAT ACATATAGGA				
<==				
<==				
-----				
TTAATTGTAC AAGACCCAAC TACAATAAAA GAAAAAGGAT ACATATAGGA				
				==>
				==>
				==>
				==>

FIG. 2-B

1260	1270	1280	1290	1300
CCAGGGAGAG CATTTTATAC AACAAAAAT ATAATAGGAA CTATAAGACA				
^==				
^==				
-----				
CCAGGGAGAG CATTTTATAC AACAAAAAT ATAATAGGAA CTATAAGACA				
==>				
==>				
==>				
==>				
1310	1320	1330	1340	1350
AGCACATTGT AACATTAGTA GAGCAAAATG GAATGACACT TTAAGACAGA				
^==				
^==				
-----				
AGCACATTGT AACATTAGTA GAGCAAAATG GAATGACACT TTAAGACAGA				
==>				
==>				
==>				
==>				
1380	1370	1360	1350	1400
TAGTTAGCAA ATTAAAAGAA CAATTTAAGA ATAAAACAAT AGTCTTTAAT				
^==				
^==				
-----				
TAGTTAGCAA ATTAAAAGAA CAATTTAAGA ATAAAACAAT AGTCTTTAAT				
==>				
==>				
==>				
==>				
1410	1420	1430	1440	1450
CAATCCTCAG GAGGGGACCC AGAAATTGTA ATGCACAGTT TTAATTGTGG				
^==				
^==				
-----				
CAATCCTCAG GAGGGGACCC AGAAATTGTA ATGCACAGTT TTAATTGTGG				
==>				
==>				
==>				
==>				
1460	1470	1480	1490	1500
AGGGGAATTT TTCTACTGTA ATACATCACC ACTGTTTAAT AGTACTTGGA				
^==				
^==				
-----				
AGGGGAATTT TTCTACTGTA ATACATCACC ACTGTTTAAT AGTACTTGGA				
==>				
==>				
==>				
==>				

FIG. 2-F

1510	1520	1530	1540	1550
ATGGTAATAA TACTTGGGAAT AATACTACAG GGTCAAATAA CAATATCACA				
=====				
ATGGTAATAA TACTTGGGAAT AATACTACAG GGTCAAATAA CAATATCACA				
				==>
				==>
				==>
				==>
1550	1570	1580	1590	1600
CTTCAATGCA AAATAAAACA AATTATAAAC ATGTGGCAGG AAGTAGGAAA				
=====				
CTTCAATGCA AAATAAAACA AATTATAAAC ATGTGGCAGG AAGTAGGAAA				
				==>
				==>
				==>
				==>
1610	1620	1630	1640	1650
AGCAATATAT GCGCGTCCCA TTGAAGGACA AATTAGATGT TCATCAAATA				
=====				
AGCAATATAT GCGCGTCCCA TTGAAGGACA AATTAGATGT TCATCAAATA				
				==>
				==>
				==>
				==>
1660	1670	1680	1690	1700
TTACAGGGCT ACTATTAAACA AGAGATGGTG GTAAGGACAC GGACACGAAAC				
=====				
TTACAGGGCT ACTATTAAACA AGAGATGGTG GTAAGGACAC GGACACGAAAC				
				==>
				==>
				==>
				==>
1710	1720	1730	1740	1750
GACACCGAGA TCTTCAGACC TGGAGGAGGA GATATGAGGG ACAATTGGAG				
=====				
GACACCGAGA TCTTCAGACC TGGAGGAGGA GATATGAGGG ACAATTGGAG				
				==>
				==>
				==>
				==>

FIG. 2-G

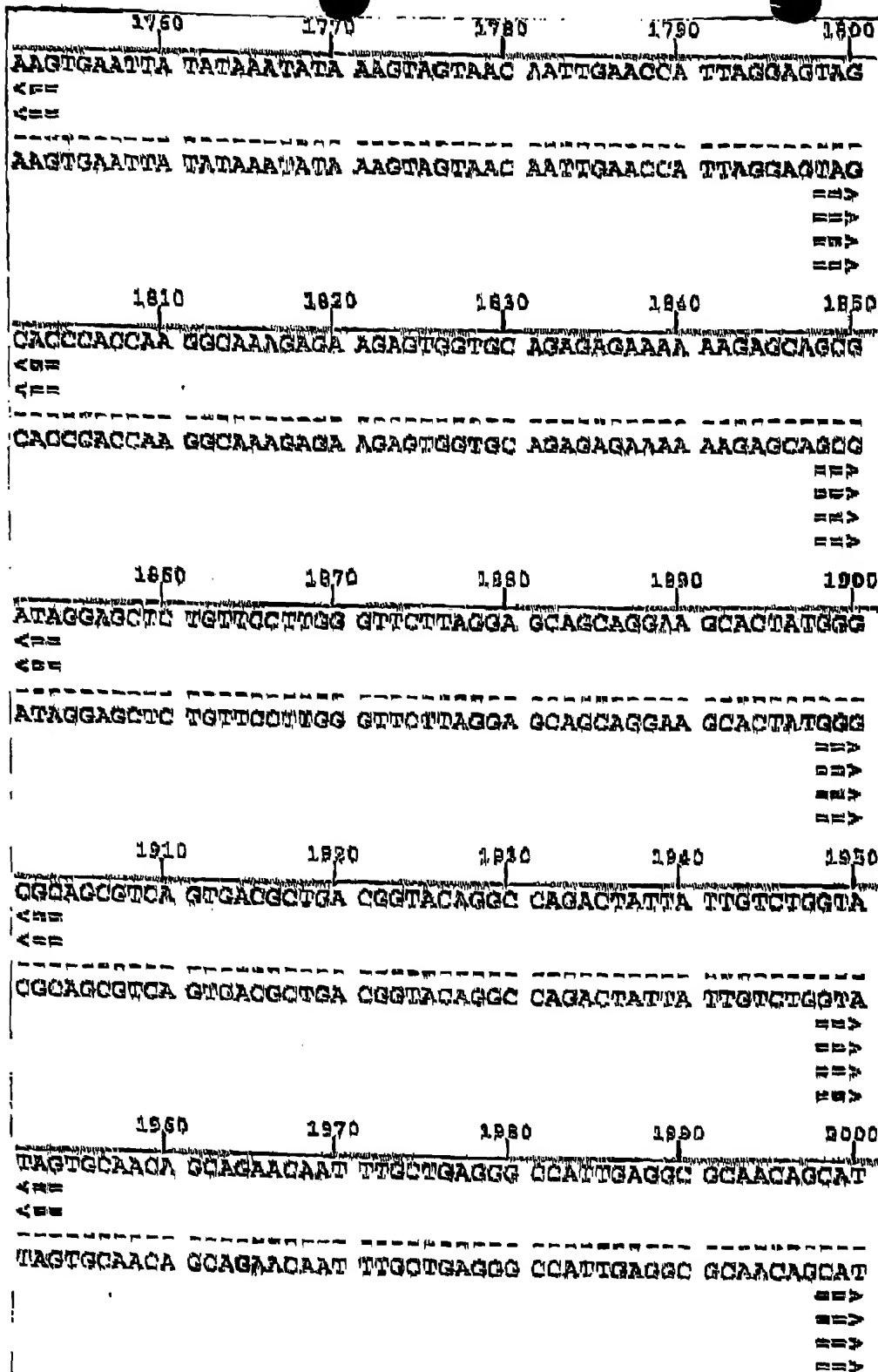


FIG. 2-H

2010	2020	2030	2040	2050
ATGTTGGAAC TCAAGTCTG GGCATCAAG CAGCTGCAGG CAAGAATCCT				
=====				
ATGTTGGAAC TCAAGTCTG GGCATCAAG CAGCTGCAGG CAAGAATCCT				
=====				
2060	2070	2080	2090	2100
GGCTGTGGAAG AGATACCTAA AGGATCAACA GCTCCTGGGG ATTTCGGGCT				
=====				
GGCTGTGGAAG AGATACCTAA AGGATCAACA GCTCCTGGGG ATTTCGGGCT				
=====				
2110	2120	2130	2140	2150
GCTCTGGAAA ACTCATTTGG ACCACTACTG TGCCTTGGAA TGCTAGTTGG				
=====				
GCTCTGGAAA ACTCATTTGG ACCACTACTG TGCCTTGGAA TGCTAGTTGG				
=====				
2160	2170	2180	2190	2200
AGTAATAAAT CTCTGGATGA TATTTCGAAT AACATGACCT GGATGCACTG				
=====				
AGTAATAAAT CTCTGGATGA TATTTCGAAT AACATGACCT GGATGCACTG				
=====				
2210	2220	2230	2240	2250
GGAAAGAGAA ATTGACAATT ACACAAGCTT AATATACTCA TTACTAGAAA				
=====				
GGAAAGAGAA ATTGACAATT ACACAAGCTT AATATACTCA TTACTAGAAA				
=====				

FIG. 2-I

2260	2270	2280	2290	2300
AATCGCAAC CCAACAAGAA ATGAATGAAC AAGAATTATT CGAATTGGAT				
<==				
<==				
-----				
AATCGCAAC CCAACAAGAA ATGAATGAAC AAGAATTATT CGAATTGGAT				
				==V
				==V
				==V
				==V
2310	2320	2330	2340	2350
AATCGGCAA GTTTGTGGAA TTGGTTTGAC ATAACAAATT GGCTGTGGTA				
<==				
<==				
-----				
AATCGGCAA GTTTGTGGAA TTGGTTTGAC ATAACAAATT GGCTGTGGTA				
				==V
				==V
				==V
				==V
2350	2360	2370	2380	2390
TATAAAATA TTCATAATGA TAGTAGGAGC CTGGGTAGGT TTAAGAATAG				
<==				
<==				
-----				
TATAAAATA TTCATAATGA TAGTAGGAGC CTGGGTAGGT TTAAGAATAG				
				==V
				==V
				==V
				==V
2410	2420	2430	2440	2450
TTTTTGCTGT ACTTTCTATA GTGAATAGAG TTAGGCAGCG ATACTCACCA				
<==				
<==				
-----				
TTTTTGCTGT ACTTTCTATA GTGAATAGAG TTAGGCAGCG ATACTCACCA				
				==V
				==V
				==V
				==V
2450	2460	2470	2480	2490
TTGTCGTTGC AGACCCGCCC CCGAGTTCCG AGGGGACCCG ACAGGCCCCA				
<==				
<==				
-----				
TTGTCGTTGC AGACCCGCCC CCGAGTTCCG AGGGGACCCG ACAGGCCCCA				
				==V
				==V
				==V
				==V

FIG. 2-J

2510	2520	2530	2540	2550
AGGAATCGAA GAAGAAGGTG GAGAGAGAGA CAGAGACACA TCCTGGTCGAT				
=====				
AGGAATCGAA GAAGAAGGTG GAGAGAGAGA CAGAGACACA TCCTGGTCGAT				
=====				
2560	2570	2580	2590	2600
TAGTGCATGG ATTCTTAGCA ATTATCTGGG TCGACCTGGG GAGCCTGTTG				
=====				
TAGTGCATGG ATTCTTAGCA ATTATCTGGG TCGACCTGGG GAGCCTGTTG				
=====				
2610	2620	2630	2640	2650
CTCTTCAGCT ACCACCACTT GAGAGACTTA CTCTTCATTG CAGCGAGGAT				
=====				
CTCTTCAGCT ACCACCACTT GAGAGACTTA CTCTTCATTG CAGCGAGGAT				
=====				
2660	2670	2680	2690	2700
TGTTGGAAGTT CTGGGACGCA GGGGGTGGGA AGTCTCAAA TATTGGTGGG				
=====				
TGTTGGAAGTT CTGGGACGCA GGGGGTGGGA AGTCTCAAA TATTGGTGGG				
=====				
2710	2720	2730	2740	2750
ATTCTCCTACA GTATTGGAGT CAGGAACTAA AGAGTAGTGC TGTTAGCTTG				
=====				
ATTCTCCTACA GTATTGGAGT CAGGAACTAA AGAGTAGTGC TGTTAGCTTG				
=====				

FIG. 2-K

2750 2770 2780 2790 2800  
 OTTAATGCCA CAGATATAGC AGTAGCTGAG GGGACAGATA GGGTTATAGA  
 <==  
 <==  
 -----  
 OTTAATGCCA CAGATATAGC AGTAGCTGAG GGGACAGATA GGGTTATAGA  
 ==>  
 ==>  
 ==>  
 ==>  
 2810 2820 2830 2840 2850  
 AGTACTGCCA AGAGCTGGTA GAGCTATTCT CCACATACCT ACAAGAATAA  
 <==  
 <==  
 -----  
 AGTACTGCCA AGAGCTGGTA GAGCTATTCT CCACATACCT ACAAGAATAA  
 ==>  
 ==>  
 ==>  
 ==>  
 2860 2870 2880 2890 2900  
 GACAGGGCTT GGAAGGGCT TTGCTATAAT CTAGCACTGT CTTCCGGATC  
 <==  
 <==  
 -----  
 GACAGGGCTT GGAAGGGCT TTGCTATAAT CTAGCACTGT CTTCCGGATC  
 ==>  
 ==>  
 ==>  
 ==>  
 2910 2920 2930 2940 2950  
 GGTGTCCAGG AGCGCCAGCT GTTGGGCTCG CGGTTGAGAA GGTATTCTTC  
 <==  
 <==  
 <==  
 <==  
 -----  
 GGTGTCCAGG AGCGCCAGCT GTTGGGCTCG CGGTTGAGAA GGTATTCTTC  
 ==>  
 ==>  
 2960 2970 2980 2990 3000  
 GTGATCCTTC CAGTACTCTT CGAGGGGAAA CCGGTCTTTT TCTGCACGGT  
 <==  
 <==  
 <==  
 <==  
 -----  
 GTGATCCTTC CAGTACTCTT CGAGGGGAAA CCGGTCTTTT TCTGCACGGT  
 ==>  
 ==>

FIG. 2-L

3010 3020 3030 3040 3050  
 ACTCCGCGCA AGGACCTGAT TGTCTCAAGA TCCACGGGAT CTGAAAACCT  
 A==  
 A==  
 A==  
 A==

ACTCCGCGCA AGGACCTGAT TGTCTCAAGA TCCACGGGAT CTGAAAACCT  
 ==  
 ==

3060 3070 3080 3090 3100  
 TTCGACGAAA GCGTCTAACC AGTCGCAATC GCAAGAAGCT TGTGACTAT  
 A==  
 A==  
 A==  
 A==

TTCGACGAAA GCGTCTAACC AGTCGCAATC GCAAG  
 A7EPL  
 -----

REV  
 KNU  
 GTGACTAT  
 -----

3110 3120 3130 3140 3150  
 GGCAGGAAGA AGCGGAGACA GCGACGAAGA CCTCCTCAAG GCAGTCAGAC  
 A==  
 A==  
 A==  
 A==  
 A==  
 A==

GGCAGGAAGA AGCGGAGACA GCGACGAAGA CCTCCTCAAG GCAGTCAGAC  
 -----

3160 3170 3180 3190 3200  
 TCATCAAGTT TGTCTATCAA AGCAAGCCCC CACCTAACCC TGAAGGCACA  
 A==  
 A==  
 A==  
 A==  
 A==  
 A==

TCATCAAGTT TGTCTATCAA AGCAAGCCCC CACCTAACCC TGAAGGCACA  
 -----

3210 3220 3230 3240 3250  
 AGGCAAGGTA GCGCGAACAG GAGGAGGCGG TGGAGGGAAA GGCAAGGCA  
 A==  
 A==  
 A==  
 A==  
 A==  
 A==

AGGCAAGGTA GCGCGAACAG GAGGAGGCGG TGGAGGGAAA GGCAAGGCA  
 -----

3250	3270	3280	3290	3300
AATTCACCTCC ATCTCCGAGA GGATTCTGTC CACCTACCTC GGCAGGTCCG				
A H H				
A H H				
A H H				
A H H				
A H H				
AATTCACCTCC ATCTCCGAGA GGATTCTGTC CACCTACCTC GGCAGGTCCG				
-----				
3310	3320	3330	3340	3350
CGGAACCCGT CCCCCGCAA CTGCCCCCCC TGGAAAGACT GACCCTGGAC				
A H H				
A H H				
A H H				
A H H				
A H H				
A H H				
CGGAACCCGT CCCCCGCAA CTGCCCCCCC TGGAAAGACT GACCCTGGAC				
-----				
3360	3370	3380	3390	3400
TGC AATGAAG ACTGGGGCAC CTCGGGAACC CAAGGAGTCC GGTCCCCCCA				
A H H				
A H H				
A H H				
A H H				
A H H				
A H H				
TGC AATGAAG ACTGGGGCAC CTCGGGAACC CAAGGAGTCC GGTCCCCCCA				
-----				
3410	3420	3430	3440	3450
GATCCTGGTC GAGTCCCCCA CCGTGCTGGA ATCCGGGCACC AAGGAGTAGT				
A H H				
A H H				
A H H				
A H H				
A H H				
A H H				
GATCCTGGTC GAGTCCCCCA CCGTGCTGGA ATCCGGGCACC AAGGAGTAGT				
-----				
3460	3470	3480	3490	3500
CGACTCTAGA AGGTGCACCT ACACCCTGCT AAAGATCCCA TGCGGCCCCA				
A H H				
A H H				
A H H				
A H H				
A H H				
A H H				
C C				
L L				

HBV  
-HIV

FIG. 2-N

3510	3520	3530	3540	3550
GAGACCTGCT	AGGCATGAAT	TAAAAATTAA	TAAAAAATCA	CTTACTTGAA

3560	3570	3580	3590	3600
ATCAGCAATA	AGCTCTCTCT	TTGGAAAT		

FIG. 2-0